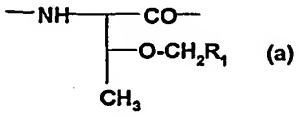
CLAIMS

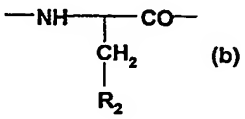
1. Use of a somatostatin analogue selected from KE108 and a somatostatin analogue comprising an amino acid sequence of formula I

-(D/L)Trp-Lys-X_1 -X_2 - I

wherein X_1 is a radical of formula (a) or (b)



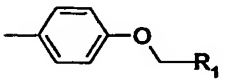
(a)



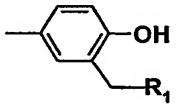
(b)

wherein R_1 is optionally substituted phenyl, wherein the substituent may be halogen, methyl, ethyl, methoxy or ethoxy,

R_2 is $-Z_1-CH_2-R_1$, $-CH_2-CO-O-CH_2-R_1$,



or



wherein Z_1 is O or S, and

X_2 is an α-amino acid having an aromatic residue on the C_α side chain, or an amino acid unit selected from Dab, Dpr, Dpm, His,(Bzl)HyPro, thienyl-Ala, cyclohexyl-Ala and t-butyl-Ala, the residue Lys of said sequence corresponding to the residue Lys^9 of the native somatostatin-14, or a pharmaceutically acceptable salt thereof,
in the preparation of a pharmaceutical composition for treating sleep apnea.

2. Use of a somatostatin analogue as defined in claim 1, or a pharmaceutically acceptable salt thereof, in the preparation of a pharmaceutical composition for improving cardiorespiratory function.

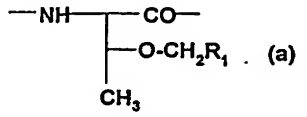
3 Use of a somatostatin analogue as defined in claim 1, or a pharmaceutically acceptable salt thereof, in the preparation of a pharmaceutical composition for improving airflow in upper airways.

4 Use of a somatostatin analogue as defined in claim 1, or a pharmaceutically acceptable salt thereof, in the preparation of a pharmaceutical composition for promoting paradoxical sleep.

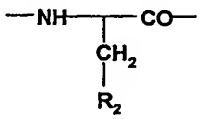
5. A method for the treatment of sleep apnea in a subject in need thereof, comprising administering to said subject a therapeutically effective amount of a somatostatin analogue selected from KE108 and a somatostatin analogue of formula I

-(D/L)Trp-Lys-X_1 -X_2 - I

wherein X_1 is a radical of formula (a) or (b)



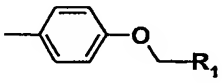
(a)

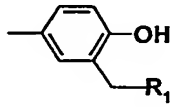


(b)

wherein R_1 is optionally substituted phenyl, wherein the substituent may be halogen, methyl, ethyl, methoxy or ethoxy,

R_2 is $-Z_1-CH_2-R_1$, $-CH_2-CO-O-CH_2-R_1$,



or


wherein Z_1 is O or S, and

X_2 is an α-amino acid having an aromatic residue on the C_α side chain, or an amino acid unit selected from Dab, Dpr, Dpm, His,(Bzl)HyPro, thienyl-Ala, cyclohexyl-Ala and t-butyl-Ala, the residue Lys of said sequence corresponding to the residue Lys^9 of the native somatostatin-14, or a pharmaceutically acceptable salt thereof.

6. A method for improving cardiorespiratory function, particularly during sleep, in a subject in need thereof, comprising administering to said subject a therapeutically effective amount of a somatostatin analogue as defined in claim 5 or a pharmaceutically acceptable salt thereof.

7. A method for improving airflow in upper airways, particularly during sleep, in a subject in need thereof, comprising administering to said subject a therapeutically effective amount of a somatostatin analogue as defined in claim 5 or a pharmaceutically acceptable salt thereof.

8. A method for promoting paradoxical sleep in a subject in need thereof, e.g. in an elderly subject, comprising administering to said subject a therapeutically effective amount of a somatostatin analogue as defined in claim 5 or a pharmaceutically acceptable salt thereof.

9. A pharmaceutical composition for use in any method according to any one of claims 5 to 8, comprising a somatostatin analogue as specified in claim 5 or a pharmaceutically acceptable salt thereof, together with one or more pharmaceutically acceptable diluents or carriers therefor.

10. Use, method or composition according to any one of claims 1 to 9, wherein the somatostatin analogue comprising an amino acid sequence of formula I is cyclo[{4-(NH_2-C_2H_4-NH-CO-O-)Pro}-Phg-DTrp-Lys-Tyr(4-Bzl)-Phe] or a pharmaceutically acceptable salt thereof.